



Clinical practice

Evaluation of a 'Decontamination Kit' in NSW

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ABSTRACT

Dedicated facilities of a high standard should be available for the examination of complainants and suspects where forensic samples are to be taken to ensure that the risk of contamination is kept to a minimum. The need for a decontamination kit came about because of the variable quality of examination facilities for complainants of sexual assault and suspects (persons of interest) within NSW. Overall the kit has been found to be useful and easy to use but there is still a need to increase awareness of its availability.

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1. Introduction

The issue of contamination in the investigation of crimes has long been recognised.¹ Forensic practitioners, doctors and nurses, may be called to the scene of a sudden unexpected death to pronounce life extinct, and to examine complainants and suspects (persons of interest) to collect forensic specimens. It is essential that contamination does not occur inadvertently at any stage of the forensic investigative process: at the scene, during the clinical examination, and/or in the laboratory. Suspects should be taken to different police stations, accompanied by different officers, and examined by different forensic practitioners from the complainant, where possible.

In many jurisdictions there are procedures to ensure that the forensic examination suite is 'single use' with professional cleaning after each examination. The current facilities in NSW are limited. There are a number of specialised sexual assault referral centres (SARC) in NSW but many examinations of complainants are performed in the local emergency department (ED). There are no clinical examination rooms in police stations and suspects are often taken to the ED of the local hospital where the facilities for the taking of forensic samples are far from ideal.

2. The need for a decontamination kit

In NSW there is currently a Sexual Assault Investigation Kit (SAIK) which contains the basic requirements for taking samples from a complainant of sexual assault. The need for a decontamination kit came about because of the variable quality of examination facilities for complainants of sexual assault and suspects.

A kit was developed in 2011 at the request of NSW Police Force (NSWPF) by Multigate (costing AUD\$13.60) (see photographs). The kit contains an outer blue sheet which can be folded out and used as a sterile/DNA free trolley cover. Inside this sheet there are 6 pairs of sterile/DNA free disposable gloves in two sizes, a bench cover (for the examination couch), two gowns – one for the patient and one for the examiner. The kit components are sealed within an outer plastic wrap and have an expiry date. The decontamination kit is too large to be included in the current SAIK. As well as the SAIK there are a number of other modules such as a nail kit, hair kit, blood and urine kit. In NSW modular kits were the preferred option but in other areas a single box containing all the necessary components may be the most convenient and appropriate solution. Over the past 18 months NSWPF has made the decontamination kits available free of charge to practitioners working in clinical forensic medicine within NSW.

3. Methodology

A short questionnaire (survey monkey) was sent to practitioners in NSW as identified by two methods:

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Table 1
Responses to questionnaire.

Question	Yes	No	
Aware of kit	32	11	
Available in SARC	34	1	8 don't know
Personally used the kit	28	11	4 were counsellors who don't examine patients
Did you find the kit useful?	27	2	
Did you find the kit easy to use?	29		
Would you use kit again?	29		

Table 2
Number of kits used.

Number of kits used	<5	5–150	>150	Unable to estimate
Annual estimate of kits used in SARC	13	11	6	13
Personal usage	4	8	14	

- Those who are on the database of completing sexual assault examinations as advised by the laboratory (NSW Forensic Analytical Science Service (NSW FASS))
- Those who had requested the kits over the past 18 months

The covering email included a request for the questionnaire to be sent to colleagues in the area as a cascading mechanism. A reminder email was sent one week after the first.

The aim of the evaluation was to establish the level of awareness of the kits and whether they are available in various centres round the State; to estimate how many kits might be required in each centre; to find out how often practitioners had used the kits and whether they would use them again; and finally any suggestions for improvements. If the kits were not available for use in the SARC respondents were asked to outline any procedures taken to prevent decontamination.

4. Results

Responses ($n = 43$) were received from 31 forensic medical examiners, 7 forensic nurse examiners and 5 counsellors. Six were permanent full time, ten permanent part-time and 27 on call only (see Tables 1 and 2). Respondents came from at least 20 sexual assault referral centres (SARC) of the 55 units in NSW, as well as one response from the Clinical Forensic Medicine Unit, NSWPF.

Suggestions for improvements included the need for a cover sheet or drape to place over patient/complainant; more pairs of gloves; a pen/black biro; and nail clippers. There was one comment about the practitioner's robe being too big and the long sleeves and cuffs resulting in the examiner feeling too hot.

With regard to other procedures used by examiners to prevent decontamination: one followed the Victorian Institute of Forensic Medicine (VIFM) decontamination procedures with the examination room professionally cleaned after a case; one attempted to follow the regime recommended by the Australasian Association of Forensic Physicians (AAFP); others commented that they used normal hand washing, wearing gloves for all collection of specimens and changing gloves for different body areas; some stated they cleaned the table and bed with alcohol and used clean linen; some wiped bench and bed, used new sheets and a new gown for each case. One respondent had serious concerns about the lack of regular cleaning of the sexual assault room.

5. Discussion & conclusions

Overall the kit has been found to be useful (96% of respondents) and easy to use for those (74%) who were aware of its existence. There is still a need to increase awareness of its availability as the procedures outlined to prevent decontamination rarely follow any authoritative recommendations. The contents of the kits will be reviewed to address some of the comments made by respondents.

In 2011 Smith suggested that minimising contamination required National Guidelines and Standards to guide and govern clinical forensic medical practice.² Facilities for the examination of complainants and suspects still vary enormously throughout Australia. High standards have been advocated such as having a dedicated room that is locked, with a log book indicating all persons who enter the examination room, with cleaning performed after each use to prevent DNA contamination.^{3,4} It is unknown if these standards have been adopted anywhere in Australasia. It is certain that they are not universally followed in NSW.

In the future such dedicated facilities of a high standard should be available for the examination of complainants and suspects where forensic samples are to be taken to ensure that the risk of contamination is kept to a minimum. This might be achieved by the provision of fewer, dedicated facilities, as recommended by the Vincent report.⁵

Meanwhile the decontamination kit can be used by forensic practitioners in an attempt to minimise possible contamination in less than ideal circumstances. It is obvious, however, from the geographical spread of respondents that only a small proportion of units in NSW are aware of, or have ready access to, the decontamination kit. This may, in part, be attributed to the lack of a central coordinating clinical forensic medical unit capable of disseminating information to all examiners. Currently information generally filters down to examiners via sexual assault counsellors and this may occur in an ad hoc manner. The lack of an overriding state-wide body is exhibited in the lack of consistency with which examinations are undertaken, where they occur, and which decontamination procedures are used, if any.

Ethical approval

None.

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Conflicts of interest

Margaret M Stark is the current Director of the CFMU of NSW Police Force.

Appendix A. Supplementary data

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.jflm.2014.04.003>.

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